

are pending in the present application, and are respectfully submitted for consideration.

In the Office Action of September 14, 2001, claim 7 was objected to under 37 C.F.R. § 1.75(b) since it was essentially a duplicate claim of claim 6. Furthermore, claims 6-20 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 6-20 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over DE 3611484. As mentioned above, claims 6-20 have been canceled without prejudice, and therefore the objection and rejections with respect to these claims are now moot.

New claims 37-49 have been added. Applicants respectfully submit that each of new claims 37-49 recites subject matter that is neither disclosed nor suggested in the cited prior art.

Claim 37 recites a control circuit for controlling a discharge control switch which is provided between a load and a plurality of battery cells which are coupled in series. The discharge control switch is controlled by a monitor circuit which monitors over-discharge of each of the battery cells and being turned OFF when the over-discharge is monitored. The control circuit comprises a coupling means for coupling the control circuit to the monitor circuit, and a control means for forcibly turning OFF the discharge control switch regardless of whether the over-discharge is monitored by the monitor circuit.

Claim 38 recites a control circuit for controlling a discharge control switch which is provided between a load and a plurality of battery cells. The discharge control switch is controlled by a monitor circuit which monitors over-discharge of

each of the battery cells and being turned OFF when the over-discharge is monitored. The control circuit comprises a first terminal which receives a first external signal, and a control means, coupled to the first terminal, for forcibly turning OFF the discharge control switch in response to the first external signal, regardless of whether the over-discharge is monitored by the monitor circuit.

Accordingly, the present invention provides a control circuit in which built-in cells never over-discharge even if connected to an electronic device for a long period of time. As such, the present invention results in the advantage whereby the battery unit is prevented from being deteriorated and shortened of the life thereof.

In the Office Action of September 14, 2001, the Examiner noted that DE 3611484 (hereinafter "DE '484") fails to disclose or suggest the monitoring of each individual cell voltage. The Examiner further noted that "it is well known in the art that in large battery units (traction batteries) it is necessary to monitor the voltage of each individual cell." Applicants are in agreement with the Examiner's position that DE '484 fails to disclose or suggest the monitoring of each individual cell voltage. However, Applicants respectfully traverse the "well know" statement made above, and request the Examiner to produce documentary proof of the statement taken.

It is submitted that each and every element recited within claims 37 and 38 of the present application is neither disclosed nor suggested by DE '484. In particular, Applicants submit that DE '484 fails to disclose or suggest the limitation of a monitor circuit which monitors over-discharge of each of the battery

cells and being turned OFF when the over-discharge is monitored. As mentioned above, the Examiner noted that DE '484 fails to disclose or suggest the monitoring of each individual cell voltage. As such, Applicants respectfully submit that DE '484 fails to disclose or suggest each and every element recited within claims 37 and 38 of the present application.

As for claims 39-49, Applicants submit that each of these claims recites subject matter which is neither disclosed nor suggested by the cited prior art. In particular, each of these claims depends on claims 37 and 38, respectively. Therefore, each of these claims incorporates each and every limitation recited within claims 37 and 38, respectively therein. Thus, Applicants submit that each of claims 39-49 also recites subject matter which is neither disclosed nor suggested by DE '484 for at least the reasons set forth above with respect to claims 37 and 38.

In view of the above, Applicants respectfully submit that claims 37-49, each recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicants also submit that this subject matter is more than sufficient to render the claims non-obvious to a person of ordinary skill in the art, and therefore respectfully request that claims 37-49 be found allowable and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact by telephone the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees, may be charged to Counsel's Deposit Account No. 01-2300.

Respectfully submitted,



Sam Huang
Attorney for Applicants
Registration No. 48,430

Customer No. 004372
ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W.
Suite 400
Washington, D.C. 20036-5339
Tel: 202/857-6435
Fax: 202/638-4810
SH:elp

Enclosure: Petition for Extension of Time
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